

A Research Proposal  
on  
METACOGNITIVE STRATEGY USAGES AND ATTRIBUTIONAL  
BELIEFS OF THE ADOLESCENTS: INFLUENCE ON CAREER  
ASPIRATION AND ACHIEVEMENT ORIENTATION

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## **Introduction**

The term “Adolescence” is derived from Latin word “Adolescere” which means “growing towards maturity”. It is very difficult to define exactly the period of life which constitutes adolescence. However it runs between the age of 13-18 years of one’s life. Adolescence is a period when the individual is neither a child nor an adult. In fact this is a period when the child gets an opportunity to prepare himself to be an adult. During this period of development great physical and mental changes occur. Therefore this period of development is a period of uncertainty. In the words of Jersild (1978), it is that span of years during which boys and girls move from childhood to adulthood mentally, emotionally, socially and physically. Adolescence as a distinct developmental stage is critical in its impact on a changing society as well as on the development of the individual. According to Rogers (1985), “Adolescence is a process rather than a period, a process of achieving the attitudes and beliefs needed for effective participation in society”.

Adolescence, the second decade of life, is a developing and ripening passage leading towards maturity. Adult-sized bodies deny adolescents a childhood label, but their struggles towards ego development and immature emotional skills deny them adult categorization. Sandwiched between childhood and adulthood, adolescence is a holding period of society and gives schooling the number one priority. Success in school and acceptance by peers are the consuming missions of adolescents (Schvaneveldt, & Adams, 1983).

We can begin to understand this age group if we look at its place on the growth sequence. It is the last step before being an adult. This is a time for adolescents to decide about their future line of work and think about starting their own families in a few years. One of the first things they must do is to start making their own decisions. For example adolescents can begin to decide what to buy with their own money or who will be their friend. Adolescents can ‘spend hours’ day dreaming about their future life. They might be planning the things they can do or will buy ‘when they grow up’.

World Health Organization (WHO) defines adolescence both in terms of age (spanning the ages between 10 and 19) and in terms of a phase of life marked by special attributes which include; rapid physical growth and development, physical, social and psychological maturity, but not all at the same time sexual maturity and the onset of sexual activity, experimentation, development of adult mental process and adult identity; transition

from total socio-economic dependence to relative independence. Hall (1904) describes adolescence as the age of rapid fluctuation of moods; both positive moods such as elation and negative ones such as depression. The impact of negative moods characterizing this period on behaviour and well being has received much attention. For example, depression is a well known correlate of substance abuse and premature pregnancy in adolescence. Among the cognitive changes that occur during this period are increases in abstract, idealistic and logical thinking.

Adolescents face a range of developmental issues. Havighurst (1952) suggested that two important areas included work and relationships. Levinson (1978) focused on changing relationships and on exploration, while Erikson (1968) commented on intimacy and commitment to goals. Super (1963) indicated that exploring and crystallizing vocational choice are important to older adolescents and young adults. What seems evident is that older adolescents and young adults enter transitions with the goal of becoming independently functioning adults, as they strive to meet evolving personal and career related needs. Rapid and escalating changes in labour market and post-secondary educational opportunities mean that adolescents now are confronted with the challenge of meeting their personal and career needs when neither can offer certainty or a sense of personal control.

Career preparation in adolescents is an important precursor for successful career development across the life span. During adolescence developing a vocational identity is a central developmental task. One's vocational identity or occupational self-concept is typically reflected in a person's expressed career aspirations. Research indicates that adolescents' career aspirations are among the most useful predictors of eventual occupational choices made in adulthood. Career orientation is important for adolescents because it is related to decision about one's education, career and family.

### **Metacognitive Strategies**

Metacognition means "thinking about one's own thinking." More specifically, metacognition is "an appreciation of what one already knows, together with a correct apprehension of the learning task and what knowledge and skills it requires, combined with the ability to make correct inferences about how to apply one's strategic knowledge to a particular situation, and to do so efficiently and reliably" (Peirce, 2003). Students who are able to identify suitable learning strategies in the proper situation are using metacognition.

For example, a student may understand that he has difficulty in finding the connection between important concepts within a story. If he/she has been taught to use a graphic organizer, such as a concept map, to identify the main concepts and link them together using lines, similar to a spider web, then that student has used metacognition to complete the task (Nelson & Conner, 2008). In general, metacognition is the engine that drives self-directed learning.

Over the last 35 years, many definitions have been proposed for the word metacognition, or “thinking about thinking”. A recent definition describes metacognition as “one’s knowledge and beliefs about one’s own cognitive processes and one’s resulting attempts to regulate those cognitive processes to maximize learning and memory” (Ormrod, 2006). Metacognition plays an important role in communication, reading comprehension, language acquisition, social cognition, attention, self-control, memory, self-instruction, writing, problem solving and personality development (Flavell, 1979). Metacognition is a special type of knowledge and ability that develops with personal experience and with schooling. It is in a recursive loop with cognitive development in that it both produces and is a product of cognitive development (Paris & Winograd, 1990)

Metacognitive strategies appear obvious, therefore some teachers might believe that students during adolescence begin the school year cognizant of these strategies and experienced in using them. The truth is, most students are unaware of the metacognitive process. One of the main struggles that students face in trying to develop an understanding of metacognition and ways to develop strategies that positively impact themselves is an overall lack of awareness to their own learning process. Only by using metacognitive strategies students can truly learn.

### **Types of Metacognitive Strategies**

Metacognitive Strategies may be summarised as ‘higher order executive skills which enable students to approach learning in a systematic, efficient and effective way by using the elements of planning, monitoring and evaluating’. Various metacognitive strategies used in learning are:

**Monitoring:** Refers to the implementation of self-checking and self-assessment measures. Monitoring may involve self-checking for understanding, self-testing, and organised reviews

of learned material. Monitoring implies systematizing attempts to evaluate the assimilation and organisation of learned material.

**Planning:** Refers to the implementation of self-directed organizational strategies designed to enhance learning. Planning may involve prioritising, time management, scheduling, setting realistic goals, and arranging work environments appropriately. Planning implies thoughtful preparation for completing work.

**Regulation:** Refers to the implementation of strategies designed to counter difficulties identified when monitoring. Specific regulatory strategies may include attempting different ways to learn material, seeking explanations from teachers, or identifying mistakes in reasoning.

**Predicting outcomes:** Helps students to understand what kinds of information they might need to successfully solve a problem.

**Evaluating work:** Reviewing of work to determine where their strengths and weaknesses lie within their work.

**Selecting strategies:** Students decide which strategies are useful for a given task.

**Using directed or selective thinking:** Students choose consciously to follow a specific line of thinking.

**Using discourse:** Students discuss ideas with each other and their teacher.

**Critiquing:** Students provide feedback to other students about their work in a constructive way.

**Revising:** Students return their work after receiving feedback.

Some of the metacognitive strategies that facilitate learning include: planning, monitoring, and regulating the cognitive process during the learning activities, and regulating and planning individual learning strategies (McMillan, 2010). By practicing and applying metacognitive strategies, students will become good readers, capable of handling any text across a curriculum.

### **Attributional Beliefs**

Fritz Heider was the first to develop a theory of attribution in 1958 in his book 'The Psychology of Interpersonal Relations'. According to Heider attribution is the process of drawing inferences (Griffin, 1994). In our personal interaction, we base judgments on far more than sensory information. We also make inferences on what a person did or how a

person acted and make inferences about those actions. Heider believed that the attribution theory is a three-step process in which people have: (1) A perception of the action; (2) A judgment of intention; and (3) An attribution of disposition. He also distinguished between external and internal attributions.

However, it was Weiner (1979) who created the framework we use today in terms of achievement. According to Weiner, most of the causes to which students attribute their successes or failures can be characterized in terms of three dimensions: locus (location of the cause internal or external to the person), stability (whether the cause stays the same or can change), and responsibility (whether the person can control the cause). Borkowski (1984) reported that children who attributed success to effort were more strategic following strategy training than those who attributed success to non controllable factors such as luck.

The attribution theory is the theory that argues people look for explanation of behavior, associating either dispositional (internal) attributes or situational (external) attributes". In this theory, success or failure is governed by the content of one's thoughts. As students we often question why we have failed or why we have succeeded so that we can succeed in the next academic situation. If we take a psychological perspective when examining how a student answers the question of "why?", we may see how this answer affects a student's future in terms of the student's expectations of success, emotional reactions, and persistence at achievement-related tasks.

The measurement of attributional beliefs in adolescents and adults is an important issue because a substantial amount of research indicates that these beliefs about the causes of events are related to achievement-oriented behavior and self-esteem. Several studies have reported that beliefs about the causes of events (i.e., causal attributions) are related to achievement-oriented behavior. Skinner (1995) has suggested that achievement-oriented behavior is related to beliefs about successful strategies and beliefs about the capacity to enact those strategies.

### **Types of Attributions:**

Ability, effort, task difficulty and luck are some of the factors to which we can attribute our academic outcome (Powers and Rossman, 1983). In other words, those four causes can be answers to the student's question of "why?". Students seek to understand the world around them, such as searching for the causes of success and failure in academic tasks.

When we look closer at these causes, we can put internal or external attributes to them, also called the cause's locus, as well as stability and controllability attributes. Stability, as one might assume, describes if the factor is the same or changing over time and controllability describes if the student has control over the cause.

Weiner (1979) proposed a three dimensional classification of causality to explain the attributional theory.

**Locus of control- (internal-external):** The first dimension is an internal-external continuum to the individual. Locus means the cause is within (internal) or outside (external) an individual. For instance, factors like mood and ability are internal causes, whereas luck and teacher bias are external causes.

**Stability- (stable-unstable):** Stability means the cause is unchanging. "I'm good at playing guitar since I've practiced over one year". In this case, the ability of playing guitar is a stable cause for this person. "I got an A in math this time because the test is very easy, everyone had an A." Someone performed very well just by chance, and the easy test is an inconsistent or unstable cause.

**Controllability- (controllable-uncontrollable):** Controllability refers to the factors that we can control to influence results. Factors like skill and competence are classified as controllable, whereas luck and mood are classified as uncontrollable.

Pupils who attribute failure to a lack of effort are likely to increase their efforts in future attempts to solve a task. These pupils perceive that they have control over their performance. Children with learning difficulties often develop motivational and personal problems as a consequence of their learning difficulties.

### **Career Aspiration**

Aspiration is a complex concept that can be defined as anything from abstract wishes and dreams to concrete plans and expectations. Career development is important aspect of adolescents' life. Adolescence is a time when teenagers develop certain aspirations regarding their educational and future careers. Career aspiration means eager desire for career. During adolescence, aspirations are especially important because they allow teen-agers to evaluate the degree to which various choices help or hinder their chances of attaining desired goals. Career preparation in adolescence is an important precursor for successful career development across the life span and is closely related to adolescence adjustment and well-

being. Career development, for most people, is a lifelong process of engaging the work world through choosing among employment opportunities made available to them. Each individual's career aspiration is influenced by many factors including the context in which they live and their personal aptitudes. Choosing a career is often considered a major turning point in an adult's life. This decision alone has the potential to open the door for success or close the door of opportunity.

A major turning point in adolescents' lives involves the career choice that they make while in high school. Frequently, it is viewed by family and community as a mere start to workplace readiness, however, this decision plays a major role in establishing youth in a career path that opens as well as closes opportunities. In the present education system of (10+2+3), career decisions start taking shape from 8<sup>th</sup> pre-10<sup>th</sup> stage and it is expected that by the end of +2 stages a clear and distinct picture of career decision would emerge.

Career aspiration is the individual's ability to make appropriate career choice, including awareness of what is required to make a career decision and the degree to which one's choices are both realistic and consistent over time (Crites, 1978, Ohler, Levinson and Hays, 1996). Career aspiration focuses on the extent to which an individual has acquired the necessary knowledge and skills to make intelligent, realistic career choices. It is the readiness of an individual to make an informed, age-appropriate career decision and cope with appropriate career development tasks (Luzzo, 1993).

### **Dimensions of Career Aspiration**

Career aspiration encompasses a variety of dimensions. Few of them are listed below:

**Leadership aspiration:** Leadership aspiration refers to the degree to which adolescents aspire to obtain promotions, train others, and become a leader in his/her field. The lack of skill or experience does not discourage those that have strong aspirations of engaging themselves into a leadership role.

**Achievement aspiration:** Achievement aspiration refers to the aspiration that helps to have an achievement. Because more the aspirations one has, more the opportunities he/she gets for achievements.

**Educational aspirations:** Educational aspiration refers to the extent to which adolescents intend to obtain additional education in their given field. Education can determine a person's

future income potential and in many cases, it is the only way a person can climb up the socioeconomic ladder.

### **Achievement Orientation**

Achievement orientation refers to the extent to which an individual desires to excel and succeed at difficult tasks, and do them better than others (Greenberg & Baron, 2000). Elliott and Harackiewicz (1994) stated, "Achievement oriented individuals ... place a high value on competent performance, and are motivated to attain high levels of skill in competition with a standard of excellence". In the proposed study the term achievement orientation focuses on achievement related motivation of the adolescents.

Motivation is an inner state of one's mind that energizes, activates or moves and directs or channelizes the behavior of an individual towards goals. It is the process which influences people to act. The process involves needs; drives and goals need drive and incentive make motivation cycle which is directly related to achievement. Murray used the term 'n-Ach' or need achievement to refer motivation that is instrumental in stimulating individuals both children and adults to strive towards achieving some goal. He considers it as one of the whole constellation of needs that is the part of personalities of all individuals.

Young people direct their own development and create their own future life, and that individuals' achievement oriented motivation has an important role in this process (Nurmi, 1993). Achievement orientation is defined as internalized tendencies to strive for standard of excellence. It attempts to account for the determinants of the direction, magnitude and persistence of behaviour. As a result of independent thinking, skill development and personality development in the academic atmosphere of an institution of higher learning, it is expected that students desire to excel i.e. achievement orientation will be enhanced. Achievement orientation consists of three dimensions, namely, intellectual mastery, orientation towards work, and competitiveness (Helmreich, Beane, Lucker, & Spence, 1978).

### **Facets of Achievement Orientation**

Various facets of achievement orientation are:

**Intellectual mastery and motivation to work:** Intellectual mastery reflects one's desire to master tasks and be willing to take up challenging work. Individuals high in intellectual mastery tend to like challenging work and persist in mastering their tasks even if the tasks are difficult.

**Orientation toward work and motivation to work:** Orientation toward work refers to the extent to which one likes to work hard and finds satisfaction in excelling at work. Therefore, individuals with a positive orientation towards work will be intrinsically motivated to work.

**Competitiveness and motivation to work:** Youths who are competitive place importance on winning. Competitive individuals are likely to perceive work as a means for them to compare their performance with others. The extrinsic reason of working in order to win is likely to lead individuals to be less interested in doing good work since work in itself does not have meaning.

**Challenging goals for self and others:** It's not just doing the job more cheaply, faster, better. A truly challenging goal is one where the goal-setter recognizes that there's only a fifty-fifty chance of achieving the target. A challenging goal is a real stretch—it's not a gimme.

**Sustained action in the face of obstacles or adversity:** We all encounter obstacles. A person with a high drive for results or achievement orientation will keep getting back up even after life has knocked her down a couple of times.

**Looking out for places where problems might arise and fixes them:** Achievement orientation doesn't mean merely solving problems. It means actively looking for places where problems might arise and taking action before the problems occur.

**Seeking out interesting projects to work on when the current assignment is completed:** Even in the midst of a challenging and demanding assignment, the individual with a high achievement orientation actively scouts out the next assignment.

Research suggests that achievement orientation often leads to positive outcomes (Harackiewicz et. al.1997). For example, in the early career stage, individuals who are high on achievement orientation tend to gain promotions more rapidly (Thompson, 1998). Studies report that students high on work mastery are more likely to adopt mastery goals, and show more interest in class compared to those low on work mastery (Harackiewicz et. al., 1997). Stein et. al. (1993) reported that lower achievement orientation among adolescents was associated with negative job behaviors and lower job satisfaction in young adulthood. Hence, it is likely that achievement orientation might play an important role in explaining how youths are motivated to do work.

## **Review of Literature**

Review of related literature has been presented below as follow:

### **Studies Relating to Metacognitive Strategy Usages**

Tuckman (1994) investigated that college students may already have acquired metacognitive strategies suitable for studying text, but are less likely to use them unless sufficiently motivated.

Dominik & Brian (2007) investigated Metacognition of Problem-Solving Strategies in Brazil, India, and the United States. Every cultural group showed a different preference regarding what metacognitive strategy was most effective. Indian participants found the free production strategy to be more effective, and Indian and Brazilian participants found the combination strategy to be more effective compared to the U.S. participants. As key abilities for the five strategies, Indians rated speed, Brazilians rated synthesis, and U.S. participants rated critical thinking.

Vrugt & Oort (2008) enquired that effective self-regulated learning involved two pathways: a metacognitive and a strategy pathway. Metacognition positively affected the use of the four study strategies. The use of metacognitive and resource management strategies had a positive and the use of surface cognitive strategies had a negative effect on exam scores.

Shannon (2008) enquired that which metacognitive strategies would be the most effective for a student's specific learning styles that help students to become self-directed learners by determining specific learning styles. The results of the study revealed that teaching students metacognitive strategies is a valuable skill that helps students become more self-directed learners.

Akyol et. al. (2010) reported that there is a significant difference in the level of students' cognitive and metacognitive strategy use scores. Besides, elaboration, organization, and metacognitive self-regulation strategy use were found to make a significant contribution to students' science achievement. Moreover, prior knowledge, parents' educational level, number of reading materials at home, frequency of buying a daily newspaper, presence of a separate study room, and presence of a computer with internet connection at home were significantly associated with cognitive and metacognitive strategy use and science achievement.

Kumar (2010) studied the role of Metacognition in learning and teaching of physics and found that the metacognitive knowledge of strategy, task and personal variables enables students to perform better and learn more.

Ciascai and Haiduc (2011) examined that pupils have average metacognitive skills for effectively using the science textbooks. It is recommended that if pupils are to fully benefit from the information presented in science textbooks, teachers have to help them use this resource in more constructive ways.

Shokrpour & Nasiri (2011) enquired that there was not a significant difference between good and poor readers in using cognitive strategies. These two groups, however, differed significantly in using metacognitive strategies. In other words, good readers outperformed the poor readers in employing metacognitive strategies. Within group data analysis revealed that in both groups, there was a significantly positive correlation between the use of cognitive and metacognitive strategies.

Okoro (2011) stated metacognition is an effort of figuring out how to do a particular task or self of tasks are done correctly. The use of metacognitive strategies have been associated with successful learning, bought students usually make use of certain strategies that are associated with success in their learning endeavor.

Arani and Mobarakeh (2012) investigated that logical/mathematical intelligence had a significant relationship with metacognitive strategies in EFL context. Moreover, males and females, except for logical/mathematical intelligence usage, didn't have any significant difference in the application of metacognitive strategies.

### **Study Findings on Attributional Beliefs**

Kurtz-Costes & Schneider (1994) examined the relationship between academic self-concept, attributional beliefs and achievement. A bidirectional relationship operated between self-concept and achievement. Success attributions to ability were positively related to self-concept and achievement but were not a direct predictor of achievement.

Turner et. al. (1998) investigated on the relationship of attributional beliefs to self-esteem. The internal consistency and the inter correlations of the Students' Perception of Control Questionnaire (SPOCQ) subscales were found to be acceptable. Additionally, SPOCQ scores were related to self-esteem and grade point average. There were significant

differences in the SPOCQ scores for males and females and in the relation of SPOCQ scores to self-esteem.

Vlachou & Buchel (2000) found that there exists no significant correlation between success and failure outcomes for effort, ability, task and luck. Results also indicated that the group who received the double training made better distinction between the attribution element and success or failure outcome than the two other groups.

Bong (2004) assessed academic self-efficacy, task value, attributional beliefs and achievement-goal orientations of high school girls. Results reported that students form motivational beliefs that are subject-matter specific and that some beliefs generalize more than others across multiple academic domains. On average, attributional beliefs appeared least "generalizable," followed by task value and mastery achievement-goal orientations. Motivational beliefs in each of the specific school subjects were more strongly correlated with motivational beliefs in general school learning than with beliefs in other areas of subject matter.

Chan & Moore (2006) investigated on the development of attributional beliefs and strategic knowledge in years 5 to 9. Data were collected on students' attributional beliefs regarding the reasons for their school success and failure, their knowledge and reported use of learning strategies and academic achievement. Results of the differential patterns of causal influence of these measures for intervention and non-intervention students were reported.

Law (2009) showed that students' implicit attributional beliefs about intelligence and ability, and their intrinsic motivation and metacognitive awareness of the use of reading strategies were associated with their reading comprehension. These findings suggest that the Chinese children who considered intelligence and ability as controllable were more likely to be intrinsically motivated to learn to read and to use various reading strategies to tackle problems when constructing meaning from text, resulting in a better understanding of text.

Haynes et. al. (2010) reported that attributional retraining increased mastery motivation but did not affect performance motivation. Findings also demonstrated that mastery motivation mediated the relationship between attributional retraining and grade point average, suggesting that mastery motivation is a key mechanism of attributional retraining.

## **Study Findings on Career Aspiration**

Cochran (1983) examined the relationship between career status aspirations and strength of career orientation of 12<sup>th</sup> graders and reported their most preferred occupational aspiration. Results indicated students with higher status professional aspirations manifested stronger career orientations than students with lower status aspirations.

Owuamanam (1983) studied the relationship between academic motivation and occupational aspiration of secondary school students. The result of the study revealed that academic motivation and occupational aspiration seemed to complement each other. Both motivation and aspiration were higher among males.

Westbrook and Sanford (1993) studied the relation between self appraisal and appropriateness of career choices of male and female adolescents and reported that there is not any gender difference in career choices.

Luzzo (1995) examined the relationship between career aspiration-current occupation congruence and the career maturity of undergraduates. Results revealed a significant relationship between aspiration-occupation congruence and two separate measures of career maturity.

Wang (2001) studied the empirical relationship between career aspiration and science education. Results reconfirm a strong link between educational attainment and student career aspiration and indirect relations between career aspiration and contextual factors of educational productivity.

Sharma (2003) reported that high achievers showed comparatively favorable career attitude than low achievers. It has also been found that both groups showed the significant differences in total career competence, as well as, competence in self-appraisal, occupational information, goal selection, planning and problem solving, and achievement orientation.

Szabo (2006) investigated the influence of attributional retraining on career choices and reported that there was a statistically significant change in attributional style for negative situations for students in the retraining condition. A statistically significant change in the attributional style after attributional retraining was found. Changes in attributional style are related and have an effect on the choice of career field.

Mona (2011) found that academic group students had higher career maturity, self-concept and perceived better family environment as compared to their vocational

counterparts. Girls in the sample possessed greater career maturity and self concept as compared to boys whereas boys perceived healthy environment of the family as compared to girls.

Poonam et. al. (2011) focused on a comparative study of the career choices of secondary school students in relation to their academic achievement. From results it has been found that low achievement group has greater career choice in the field of agriculture as compared to high achievement group.

Singh (2011) designed a study to compare senior secondary boys and girls on the variables of certainty and indecision in career decision-making as well as their attitudinal and cognitive career maturity. It was found that there is a significant gender differences in career decision-making and career maturity.

### **Study Findings on Achievement Orientation**

Elliot & Harackiewicz (1994) enquired the interactive effects of achievement orientation and evaluative focus of assigned, task-specific goals on intrinsic motivation for an enjoyable pinball game. Individuals low in achievement orientation displayed the highest levels of intrinsic motivation when provided with mastery-focused goals.

Small (2000) investigated the academic achievement orientation of West Indian American parents and adolescents. The results revealed that the parents were deeply involved and were knowledgeable of their children's schools and academic progress. The adolescents possessed positive school-related attitudes and attributional styles. Each adolescent was pursuing an academic track and planning for college and specific profession.

Salili & Lai (2003) reported that students studying in upper band schools (i.e., low-ability schools) used fewer strategies in learning, had lower self-efficacy, higher surface goal and lower attainment scores than those in lower band schools.

Maatta (2007) identified the kinds of achievement orientations that adolescents show and examined the kinds of antecedents and consequences of a particular orientation. The results showed that the optimistic and defensive-pessimistic achievement orientations predicted an increase in engagement with school and a decrease in depressive symptoms, whereas self-handicapping and learned helplessness predicted a decrease in engagement with school and increases in depressive symptoms and norm-breaking behavior.

Kaur et. al. (2007) enquired that the university students do not differ in their 'trust' and integration with relatives' scores of achievement orientation across different facilities of study. Science students have significantly higher levels of 'activism' scores than their social science, language and professional courses counterparts. Social science students are significantly lower in their occupational primacy as compared to science, professional and language faculty counterparts. As a whole, science students are compared to their social science, professional and language counterparts have significantly higher level of achievement orientation.

Ferla et. al. (2010) demonstrated that academic self-efficacy, self-efficacy for self-regulated learning, academic self-concept, and perceived level of understanding are conceptually and empirically distinct self-appraisals of academic competence which have a different impact on students' motivation, learning, and academic performance.

Fattah et. al. (2011) investigated that individual-oriented achievement motivation and social-oriented achievement motivation correlated positively. Individual-oriented achievement motivation correlated positively with a mastery-approach goal whereas social-oriented achievement motivation correlated positively with mastery-approach, performance-approach, and performance-avoidance goals. Performance-approach and performance-avoidance goals mediated the relationship between social-oriented achievement motivation and academic achievement. Mastery-approach goals mediated the relationship between individual-oriented achievement motivation and social-oriented achievement motivation and academic interest.

Mesa (2011) examined achievement goal orientation of community college mathematics students and the misalignment of instructors' perceptions. Results indicated that students' achievement goal orientations are consistent with adaptive learning patterns. Students are interested in developing competence, expect and believe. They can handle challenging work, avoid self-handicapping behaviors, and exhibit a positive mathematics self-concept. In addition, students in remedial classes and their instructors hold more positive perceptions than students and instructors of college classes.

### **Significance of the study**

Selection of a career and setting in it is an important task and a source of personal gratification. In the modern age of science and technology, hundred of vocations have been

thrown open to an individual. The choice of a right vocation is becoming increasingly difficult in these days. Adolescent is the period when a major turning takes place in the life of a student because the career will depend upon the subject selected at this level. Many a time, a student is forced to choose a career that is against his/her wishes viz. engineering/medical stream merely because it is a status symbol for the parents. The result is that the adolescent is confused and unable to understand what to do and how to deal effectively with such a situation. He/she has to face not only the demands, multiple pressures, cut throat competition and cope with academic standards but also has to bear with criticism and social embarrassment if he/she fails to secure the desired results. Thus it can block the growth and development of the adolescent in future.

Career aspiration has been associated with realistic self appraisal, environmental experience, family cohesion and several personal characteristics such as intelligence, locus of control and self-esteem (Bernardelli, Destetano and Dumont, 1998; King 1989; Levinson, 1993). Demographic variables of socioeconomic status (King, 1990) and age (Stem, Norman and Zevon, 1991) have positively correlated with career aspiration in the general population.

It has been demonstrated that different factors associated with career maturity operate differentially in different face, culture and gender groups (Lawrence and Brown, 1976 and Pound, 1978). For the last three decades a large pool of empirical studies have been undertaken to identify the factors associated with career aspiration, such as, socio-economic status, early childhood experiences, educational and vocational aspirations, needs and interests, locus of control, cognitive styles etc. (Osipow, 1973), work-values (Miller, 1974, educational grade (Gupta, 1987), role models (Ondroff and Hem, 1996), residential background and gender (Hasan, Rao and Thakur, 1998), perceived problem solving (Herry, 1999), school setting (Ortlepp et. al., 2002), perceived work relation barriers (Patton et al., 2003), locus of control, dependence proneness and sex (Dewangan, 2004).

Achievement goal orientations describe young people's general orientations towards learning and studying, that is, the kinds of goals they tend to choose and the kinds of outcomes they prefer in relation to studying (Niemivirta, 2002). Although we are aware of how goal orientations relate to personal outcomes (e.g., self-efficacy, anxiety, and interest; Niemivirta, 2002) and achievement-related outcomes (e.g., grades, task performance, and course choices; Harackiewicz et. al., 2000), less is known about how achievement goal

orientations related to adolescents' their styles and strategy use, attributional beliefs and selection of a career. No studies have been undertaken by taking variables as metacognitive strategies usages and attributional beliefs with achievement orientation and career aspiration of adolescents. Therefore the investigator felt that new research should be conducted by taking these variables together.

Adolescence is the period of achieving the attitudes and beliefs needed for effective participation in society. Adolescents use different metacognitive strategies which make them achieve their goals. Specific metacognitive strategies used by the learner can make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations. By using appropriate metacognitive strategies they can make their future bright and successful and can achieve their goals.

Research suggests that an individual's success in life is dependent on his/her attributional beliefs and achievement motivation. Similarly metacognitive strategy usages have great influence on one's academic success. Adolescents are the great heritage of a country. It is evident that in every society adolescents suffer from poor decision making ability particularly in selecting the right career or profession. An unguided career selection leads towards unhappiness in professional life which affects one's achievement orientation. Therefore, the adolescents must be guided to go on a right track in the selection of career which in turn would induce desired productivity.

Metacognitive strategy usages and attributional beliefs help in the process of career decision-making and achievement orientation. Those students who have difficulties in career decision-making could be helped by making them using the suitable metacognitive strategy usages and developing positive attributional beliefs. It is felt that in a country like India we lack in providing adequate input which can influence the decision making ability of the adolescents. It is the duty of the teachers, parents and the society at large to help the adolescents in using appropriate metacognitive strategies in learning and developing positive attributional beliefs which would enable them in choosing appropriate career to move towards achieving the goals of life.

### **Statement of the Problem**

Literature reflects that career aspiration and achievement orientation of adolescents is influenced by number of psychological variables and metacognitive strategy usages, and

attributional beliefs are also among them. In order to explore the influence of metacognitive strategy usages, cognitive styles and attributional beliefs on the career aspiration and achievement orientation of the adolescent, the proposed study has been undertaken titled “METACOGNITIVE STRATEGY USAGES AND ATTRIBUTIONAL BELIEFS OF THE ADOLESCENTS: INFLUENCE ON CAREER ASPIRATION AND ACHIEVEMENT ORIENTATION”

### **Operational Definitions**

**Metacognitive Strategies Usages:** Some important metacognitive strategies are predicting outcomes, evaluating work, self-assessing, self-questioning, using directed or selective thinking, selecting strategies, using discourse critiquing, revising etc. Here metacognitive strategies involve seven independent strategy types: planning, monitoring, evaluation, selective attention, directed attention, functional planning and self-management.

**Attributional Beliefs:** Ability, effort, task difficulty and luck are some of the factors to which we can attribute our academic outcome. Most of the causes to which students attribute their successes or failures can be characterized in terms of three dimensions: locus (location of the cause internal or external to the person), stability (whether the cause stays the same or can change), and responsibility (whether the person can control the cause).

**Career Aspiration:** Career aspiration is the individual’s ability to make appropriate career choice. It includes achievement aspiration, leadership aspiration, educational aspiration etc.

**Achievement Orientation:** Achievement orientation refers to the extent to which an individual desires to excel and succeed at difficult tasks. Achievement orientation consists of intellectual mastery, orientation towards work, competitiveness, challenging goals etc.

**Adolescents:** Adolescents are developing and ripening passage leading towards maturity. The children between age 13-18 are called adolescents. Here adolescents mean the students studying in senior secondary classes.

### **Objectives of the Study**

The objectives of the proposed study are:

- i. To explore the metacognitive strategy usages and attributional beliefs of the adolescents

- ii. To find out the level of career aspiration and achievement orientation of the adolescents
- iii. To find out the difference among adolescent in their metacognitive strategy usages, attributional beliefs, career aspiration and achievement orientation on the basis of gender, locality and stream.
- iv. To find out the influence of metacognitive strategy usages and attributional beliefs on career aspiration and achievement orientation

### **Hypotheses of the Study**

The hypotheses of the proposed study are:

- i. There exists significant difference among adolescent in their metacognitive strategy usages, attributional beliefs, career aspiration and achievement orientation on the basis of gender, locality and stream
- ii. Metacognitive strategy usages and attributional beliefs of the adolescents have positive influence on their career aspiration and achievement orientation.

### **Methodology**

#### **Research Method**

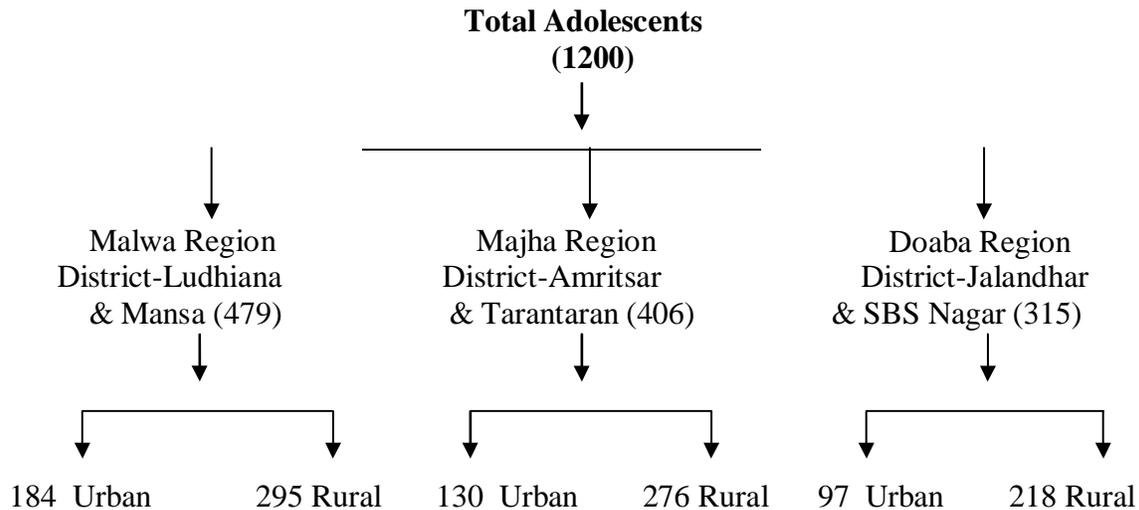
The method of the proposed study will be primarily of descriptive survey type. The study will explore the influence of metacognitive strategy usages and attributional beliefs of adolescents on their career aspiration and achievement orientation.

#### **Sampling**

Sampling technique is the technique employed by the investigator in selecting the sample. The investigator will choose the adolescents of Punjab state by using purposive sampling technique. The sample size will comprise of 1200 adolescents which would be chosen from three regions namely- Malwa, Majha and Doaba. The districts which will be covered for selection of sample and collection of data will be: Ludhiana and Mansa district from Malwa region, Amritsar and Tarantaran district from Majha region and Jalandhar and SBS Nagar district form Doaba region. Selection of the districts has been made on the basis of growth and literacy rate. The adolescents boys and girls studying in senior secondary classes of all the three streams (Arts, Science and Commerce) will be chosen from urban and rural areas of these six districts.

### Nomenclature of the Growth and Literacy Rate (2010-2011)

Region	Districts	Growth Rate	Literacy Rate	Urban Population	Rural Population	Total Population	Development
Majha	Amritsar	22.70%	77.20%	52%	48%	2490891	High
Majha	Tarantaran	N.A.	69.40%	11.98%	88.02%	1120070	Low
Doaba	Jalandhar	18.40%	82.40%	48%	52%	2181753	High
Doaba	SBS Nagar	10.40%	76.40%	13.80%	86.20%	614362	Low
Malwa	Ludhiana	24.80%	82.70%	56%	44%	3487882	High
Malwa	Mansa	19.80%	62.80%	21%	79%	768808	Low



### Tools

The tools which will be used in the proposed study are:

- Metacognitive strategy usage questionnaire will be developed and standardized by the investigator.
- Attributional beliefs scale will be developed and standardized by the investigator.
- Career aspiration scale to be developed and standardized by the investigator.
- To measure 'achievement orientation' a tool will be developed and standardized.

### Statistical Techniques

The statistical technique is a technique which is used for the collection, analysis, interpretation or explanation, and presentation of data. The statistical techniques which the investigator will use are multiple correlation, multiple regression and ANNOVA. For exploring group trend parametric statistical techniques i.e. mean, median, mode and standard

deviation will be used. For exploring group difference on different variables ANNOVA will be used. To determine the relationship between the variables multiple correlation technique will be used. To determine the predictive value of the independent variables namely- cognitive styles, metacognitive strategy usages and attributional beliefs on dependent variables namely career aspiration and achievement orientation regression equations will be calculated. Both independent and conjoint effects of the independent variable on the dependent variables will be determined.

### **Delimitations**

1. The present study will be delimited to the adolescents of Punjab state only.
2. It will further be delimited to twelve hundred adolescents of age group 16-18 years studying in senior secondary classes of different urban and rural schools of districts namely: Ludhiana, Mansa, Amritsar, Tarantaran, Jalandhar and SBS Nagar only.

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